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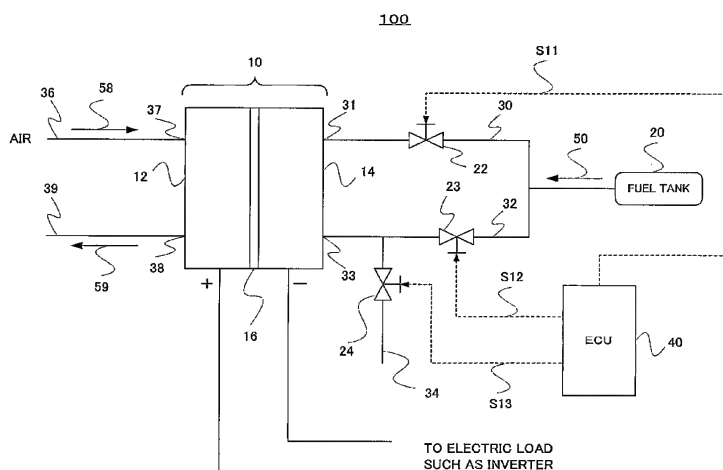
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(54) Title: FUEL CELL SYSTEM



(57) Abstract: A fuel cell system is loaded on a fuel cell automobile and the like. A fuel cell stack is constructed by an anode and a cathode, and an electric power is generated by supplying fuel gas (hydrogen) to the anode and supplying air to the cathode. The fuel cell system includes two supply passages for supplying the hydrogen to the anode. In addition, valves which control flow amounts of the hydrogen passing through the two supply passages are provided on the supply passages, respectively. Further, an exhaust passage which outputs exhaust gas from the anode is provided on the supply passage, and a valve is also provided on the exhaust passage. In the above fuel cell system, when the valve provided on the exhaust passage is closed, by controlling the valves provided on the supply passages, the flow amount ratios of the hydrogen passing through the two supply passages are varied in terms of time. Thereby, an extreme downstream position of the hydrogen in the anode can be varied. Therefore, impurities such as nitrogen in the fuel cell stack can be diffused. Thereby, a hydrogen purge amount for discharging the impurities can be reduced, and the efficiency of using fuel can be improved.

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